Technical Round Assignment

Assignment: Build a Simple To-Do List Application

Objective:

Create a full-stack To-Do List application with the following requirements:

- A frontend built with React.js.

- A backend built with Node.js and Express.js.

- Use MongoDB to store the tasks.

Requirements:

Frontend (React.js):

1. Create a single-page application with:

   - An input field to enter a task.

   - A button to add the task.

   - A list displaying all tasks with options to delete and mark as completed.

2. Use state management (React useState or useReducer) to manage the tasks temporarily before

they are sent to the server.

Backend (Node.js):

1. Set up an Express.js server with the following endpoints:

   - GET /tasks - Fetch all tasks.

   - POST /tasks - Add a new task.

   - DELETE /tasks/:id - Delete a task by its ID.

   - PUT /tasks/:id - Update a task's completion status.

2. Store tasks in MongoDB.

General:

- Use Fetch API or Axios for API calls.

- Add basic validation for task input (e.g., no empty tasks).

- Display appropriate messages for errors (e.g., failed API calls).

Deployment:

Deploy the app (e.g., on Heroku, Vercel) and share the live link.

Deliverables:

1. A zip file or GitHub repository containing:

   - Frontend code.

   - Backend code.

   - A README.md with:

     - Steps to run the application.

     - Any assumptions or libraries used.

2. A live deployed application link.

Evaluation Criteria:

- Functional correctness: Does the application meet the requirements?

- Code quality: Is the code clean, readable, and well-structured?

- Logical understanding: How well are React.js and Node.js integrated?

- Bonus points for:

  - Using TypeScript (if comfortable).

  - Following best practices (e.g., proper folder structure, error handling).

Time Limit:

- 24 hours.